

# THE BRITISH SPECIES OF *MONOCHROA*, *CHRYSOESTHIA*, *PTOCHEUUSA* AND *SITOTROGA* (LEPIDOPTERA: GELECHIIDAE)

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This is the third in a series of papers describing and illustrating the British Gelechiidae. The first (Sokoloff, 1985) covered the genera *Teleiodes* and *Teleiopsis* and dealt with general aspects of the family. The second paper (Sokoloff & Bradford, 1990) dealt with the genera *Metzneria*, *Paltodora*, *Isophrictis*, *Apodia*, *Eulamprotes* and *Argolamprotes*. In this paper we cover 17 species from the genera *Monochroa*, *Chrysoesthia*, *Ptocheuusa* and *Sitotroga*.

In describing the forewing, the nature and relative positioning of the darker spots (stigmata) are often characteristic. Discal spots and costal markings are above the fold in the wing with the plical spots and tornal markings below. Their relationship is illustrated in Figure 1. Positioning of a spot can conveniently be described by a fraction—for example “dark spot at two-thirds” means that the spot is approximately two-thirds of the way along the wing measured from the base towards the apex.

Where they are adequate, descriptions follow those of Meyrick (1928). Additional life history data are taken from Emmet (1988, 1991). Where early stages are unknown in the British Isles, continental data is given. Sources include Eckstein (1933), Medvedev (1990) and Buhl *et al.* (1989, 1992). Nomenclature follows that of Bradley & Fletcher (1986) amended by Emmet (1987).

## *Monochroa* Heinemann

The genus *Monochroa* is represented in the British Isles by 13 species, two of which are recent additions to the British list, one of these being described as new to science. The larvae of most species feed in the leaf blade, the rootstock, or mine the stem of various plants. All the British species are univoltine.

The life histories of several species are still incompletely understood or unknown. The adults can be secretive in habit and easily overlooked. With few exceptions, the genus is poorly recorded in the British Isles.

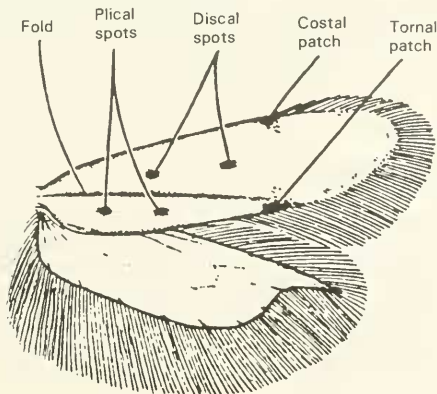


Fig. 1.

*Monochroa tenebrella* (Hübner), Plate I, Fig. 1

Wingspan 10–12 mm. Apical third of antenna white in female. Forewing unicolorous dark shining purplish-bronzy-fuscos. Hindwing grey.

Moth flies June to July. Widely distributed throughout the British Isles. Common to abundant in suitable habitats of downland and scrubland. The moth flies close to the ground, especially in sunshine.

Larva reddish; spots brown; head and prothoracic plate black-brown. Feeding in the rootstocks of sheep's sorrel, *Rumex acetosella* L., September to April. Pupates in the larval habitation.

*Monochroa lucidella* (Stephens), Plate I, Figs 2, 3, and 4

Wingspan 12–14 mm. Ground colour of forewing fuscous, unevenly sprinkled ochreous-whitish, often forming indistinct, lighter fasciae; an oblong ochreous-whitish suffusion in disc at two-thirds, followed by a dark fuscous dot; an indistinct ochreous-whitish tornal spot beneath this and a costal spot beyond. Hindwing grey. Three colour forms of this species are illustrated, although others are known.

Moth June to July. Widely distributed in England to Yorkshire, north Wales, south Wales and southern Ireland in suitable wet habitats.

Larva pale greenish-grey-ochreous; dots minute, black; head black, prothoracic plate brownish-grey. Feeding in the stems of common spike-rush (*Eleocharis palustris* (L.)) May to June, but also occurs regularly in areas where *E. palustris* is absent. On the Continent the larva also feeds in reed-mace (*Typha* spp.). Pupal habit unknown, but probably in the stem of the foodplant.

*Monochroa palustrella* (Douglas), Plate I, Fig. 5

Wingspan 17–19 mm. Ground colour of forewing pale brown, veins more or less marked with whitish streaks; interneural spaces mixed blackish; stigmata blackish, white-edged; plical and first discal elongate, second discal roundish. Hindwing grey.

Moth late June to August. Apart from a record from Exmoor, seemingly restricted to south-east England from Huntingdon, Cambridge and Suffolk south to Kent and Surrey. Favours dry pastures inland, sand-dunes and other maritime situations.

Larva whitish-pink, dorsal, sub-dorsal and subspiracular lines irregular dull crimson; tubercles brown; head deep orange; prothoracic plate brownish-ochreous or dark brown, black-marked. Feeding in the leaf petiole, stem and rootstocks of curled dock (*Rumex crispus* L.) and possibly other *Rumex* species. April to June. Pupates amongst the rootstock.

*Monochroa tetragonella* (Stainton), Plate I, Fig. 6

Wingspan 9–11 mm. Ground colour of forewing light fuscous, more or less sprinkled dark fuscous; a black dot in disc towards base, another below costa at two-fifths; stigmata dark fuscous, first discal much beyond plical. Hindwing pale grey.

Moth June to July. Eastern and southern coastal counties in England in salt-marshes.

Larva crimson reddish; pinacula minute, black; head ochreous-yellow; prothoracic plate dark brown. Feeding in the stem and roots of sea milkwort (*Glaux maritima* L.). April and May, usually killing the foodplant.

*Monochroa conspersella* (Herrich-Schäffer)  
(*morosa* Mühlig; *quaestionella* Herrich-Schäffer), Plate 1, Fig. 7

Wingspan 11–12 mm. Ground colour of forewing dark fuscous; stigmata very indistinctly darker, first discal much beyond plical; usually a pale oblique mark on costa at three-quarters. Hindwing light grey.

Moth July to August. Very few confirmed records, these being from Lincoln, Cambridge, Huntingdon, Norfolk and Kent, typically in fens or marshes.

Larva yellowish, posteriorly with suffused reddish stripes; head yellowish; prothoracic plate brown. Feeding in spun shoots of yellow loosestrife (*Lysimachia vulgaris* L.). Continental authors also record the closely related *Lythrum* spp. as foodplants.

*Monochroa hornigi* (Staudinger), Plate 1, Fig. 8

Wingspan 9–12 mm. Ground colour of forewing chocolate brown-fuscous, sprinkled with lighter brown scales; an oblique darker fascia from costa at one-third; an oblique pale-yellowish streak from costa at two-thirds, sometimes indistinct; a black spot beneath streak; darker fuscous mark on fold at one-third. Hindwing dark grey.

Moth July to August. Recorded from Hertfordshire, Kent, London, and Hampshire.

Larva yellowish-grey, longitudinal line reddish; head brown. Continental authors record the larva feeding in the stem or side branches of *Polygonum* spp.; no external evidence of feeding. Larval period unknown. Pupa in a white silken cocoon on the stem near a node. In Britain found in gardens, parks and similar habitats, but on the Continent usually associated with marshy ground.

First discovered in Britain in 1963 during a survey of Buckingham Palace gardens (Bradley, 1963).

*Monochroa niphognatha* (Gozmany), Plate 1, Fig. 9

Wingspan 12–13 mm. Head whitish-ochreous, becoming fuscous towards vertex. Ground colour of forewing whitish-ochreous; discocellular stigma dark fuscous; subcostal oblong fuscous stigmata at one-sixth and one-third; an indistinct, fuscous mid-plical mark. Hindwing grey.

Moth June to July. Kent. Larva unknown in Britain. In Sweden the species is always found in damp meadows. In Denmark the larva has been found in the stems of amphibious bistort (*Polygonum amphibium* L.) (Buhl *et al.*, 1989). Yellow loosestrife (*Lysimachia vulgaris*) has also been suggested as a foodplant, but we know of no confirmed records.

The moth was first discovered in Britain in 1984 (Chalmers-Hunt, 1985) in an extensive freshwater marsh in Kent. The species has been taken in this locality over a period of years and is clearly breeding there. No other British localities are known.

*Monochroa suffusella* (Douglas), Plate 1, Fig. 10

Wingspan 10–13 mm. Head whitish. Ground colour of forewing whitish-ochreous, posteriorly irrorated brown, costal edge whitish; second discal stigma dark fuscous; a black costal dot above it. Hindwing pale grey.

Moth June to July. Widely but sparsely distributed in England south of Yorkshire and north Wales although unrecorded from many counties. Absent from south-west England. Habitat fens and marshes. Adult crepuscular.

Larva unknown in Britain. In Denmark the larva has been found mining the stem of common cottongrass (*Eriophorum angustifolium* Honck.) (Buhl *et al.*, 1992). Medvedev (1990) gives poplar (*Populus* spp.) as the foodplant, although this is a rather surprising suggestion.

*Monochroa lutulentella* (Zeller), Plate I, Figs 11 and 12

Wingspan 14–16 mm. Ground colour of forewing varying from light ochreous-brownish to dark fuscous, glossy; second distal stigma indistinctly darker. Hindwing very pale grey. Abdomen ochreous-yellowish near thorax.

Moth late June to early August. Widely but sparsely distributed in southern England south of Derbyshire although unrecorded in many counties. Western Ireland. Habitat fens and marshes.

Larva unknown in Britain but on the Continent feeding in rootstock of meadowsweet (*Filipendula ulmaria* (L.)).

*Monochroa elongella* (Heinemann), Plate I, Fig. 13

Wingspan 12–14 mm. Antenna with three pale rings on apical third. Forewing fuscous; stigmata darker, indistinct: two anterior elongate; first discal much beyond plical; indistinct darker elongate marks in disc towards base, beneath costa before middle, and below first discal stigma; some whitish scales on tornus and a whitish spot on costa opposite. Hindwing grey. Abdomen pale ochreous-yellowish near thorax.

Moth June to July. Recorded from North Devon, East Sussex and West Norfolk.

Larva said to feed on silverweed (*Potentilla anserina* L.).

*Monochroa arundinetella* (Stainton), Plate I, Figs 15 and 16

Wingspan 9–10 mm. Ground colour of forewing fuscous; darker marks on costa near base, and on fold; an oblique whitish costal mark at two-thirds, beneath which is a short blackish dash; sometimes some whitish scales on tornus opposite, preceded by darker suffusion. Hindwing light grey.

Moth June to July. Very local in central southern England from North Wiltshire north-eastwards to Norfolk, in wet localities.

Larva slender, whitish; head blackish; prothoracic plate with black lateral spots. Mining in long galleries in the leaves of lesser pond-sedge (*Carex acutiformis* Ehrh.). March to May, pupating in a cocoon on a leaf just above water level.

*Monochroa divisella* (Douglas), Plate I, Fig. 17

Wingspan 15–16 mm. Ground colour of forewing brownish, sprinkled ochreous-whitish, lower edge of suffusion running straight from middle of base to apex; plical and second discal stigmata black, former elongate. Hindwing light grey.

Moth June to July. Very few confirmed records. Apparently restricted to Cambridgeshire and Norfolk. Larva unknown in England, but on the Continent feeding on *Iris* spp.

*Monochroa moyses* Uffen, Plate I, Fig. 18

Wingspan 8–9 mm. Ground colour of forewing light fuscous, scales with pale bases







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|---------------------------|----------------------------|-----------------------------|
| 1. <i>M. tenebrella</i>   | 8. <i>M. hornigi</i>       | 15. <i>M. arundinetella</i> |
| 2. <i>M. lucidella</i>    | 9. <i>M. niphognatha</i>   | 16. <i>M. arundinetella</i> |
| 3. <i>M. lucidella</i>    | 10. <i>M. suffusella</i>   | 17. <i>M. divisella</i>     |
| 4. <i>M. lucidella</i>    | 11. <i>M. lutulentella</i> | 18. <i>M. moyses</i>        |
| 5. <i>M. palustrella</i>  | 12. <i>M. lutulentella</i> | 19. <i>C. drurella</i>      |
| 6. <i>M. tetragonella</i> | 13. <i>M. elongella</i>    | 20. <i>C. sexguttella</i>   |
| 7. <i>M. conspersella</i> | 14. <i>S. cerealella</i>   | 21. <i>C. sexguttella</i>   |
|                           |                            | 22. <i>P. paupella</i>      |

and fuscous tips. A dark mark formed of first few costal cilia, visible both above and beneath the wing. A short row of ochreous scales form an inconspicuous upper oblique dash behind this mark. A dark stigma three scales wide and three long lies on or just behind the mid-line of the wing opposite the tip of this dash. Pale dash is faintly continued as a series of dashes parallel to costa nearly to wing tip. A dark line close to base of the cilia passes round the wingtip and fades there. Hindwing grey, mottled by gaps in the single layer of scales. Costal cilia and those towards apex of hindwing darker than wing.

Moth May to August. South-east England, to date recorded from Hampshire, Sussex, Kent, Essex and East Suffolk in fens and marshes.

Larva white, cylindrical. Feeding in the leaves of sea club-rush (*Scirpus maritimus* L.). August to April, the larva leaving the mine in winter, boring into the stem for hibernation (Langmaid, 1992).

The earliest example of this moth is a specimen taken in Essex in 1971. Larvae had been noted for a number of years but it was not until 1987 that the late E. C. Pelham-Clinton succeeded in breeding a moth—the unnamed specimen being figured in colour in this journal (Pelham-Clinton, 1989). This and other specimens were recognized as new to science, and described as *moyses* (Uffen, 1991).

### *Chrysoesthia* Hübner

Represented in the British Isles by two species. Bivoltine.

#### *Chrysoesthia drurella* (Fabricius), Plate I, Fig. 19

Wingspan 8–9 mm. Head and thorax dark metallic brassy-grey. Forewing bright orange; a silvery-lead-metallic fascia, edged black and sometimes incomplete, before middle and an irregular number of silvery-lead-metallic spots or streaks, mostly edged black, before and after the fascia. Hindwing dark grey.

Moth bivoltine, May to June, August and September. Widely distributed in English counties. Recorded also from Lanarkshire, but seemingly absent from Wales and Ireland.

Larva yellow-whitish, more or less spotted crimson; head pale brown. Feeding in leaves of *Chenopodium* and *Atriplex* making greenish blotches. July and September. Autumn larva overwinters in a cocoon. The summer larva does not form a cocoon. Pupates in detritus at ground level.

#### *Chrysoesthia sexguttella* (Thunberg), Plate I, Figs 20 and 21

Wingspan 8–10 mm. Head metallic brassy-grey. Forewing dark purplish-grey, mixed black, with some whitish scales; a yellow subdorsal spot in middle and a smaller one in disc posteriorly; an ill-defined ochreous-white tornal spot and another on costa at three-quarters. Hindwing grey.

Moth bivoltine. May to June, August. Widely distributed throughout the British Isles.

Larva yellow-whitish; dorsal line brownish; a lateral line of orange-reddish spots; head pale brown, prothoracic plate blackish. Feeding in the leaves of *Chenopodium* and *Atriplex* making whitish blotches, the larva ejecting most of the frass. June, September and October. Pupates in detritus at ground level.

### *Ptocheuusa* Heinemann

Represented in the British Isles by a single species.